



## Anuradha Wickramarachchi

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🔗 Scholar Uid: u-rFXwUAAAAJ

A passionate PhD candidate keen on learning state-of-the art and contributing towards the progress of humanity at large. Capable of teamwork and working under pressure.

### WORK EXPERIENCE

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November 2018 – present

#### Tutor

Tutoring Relational Database Systems.  
School of Computing, Australian National University

December 2017 – July 2018

#### Junior Consultant

Role of conducting research, student supervision and teaching.  
Department of Computer Science and Engineering, University of Moratuwa, Sri Lanka

July 2016 – December 2016

#### Software Engineer (Intern)

CAKE LABS Pvt LTD, Sri Lanka

### EDUCATION

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August 2018 – present

#### PhD Candidate in Computer Science

School of Computing, Australian National University  
• Computational biology and bioinformatics

2014 – 2017

#### BSc (Hons) Computer Science and Engineering

Department of Computer Science and Engineering, University of Moratuwa, Sri Lanka  
• GPA of 4.01/4.2  
• First class with deans list for all 8 semesters

### TRAINING

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Stanford Online

#### Machine Learning

An online non-credit course authorized by Stanford University and offered through Coursera

NVIDIA

#### Getting Started with AI on JETSON NANO

Offered through NVIDIA deep learning institute

Udemy

#### PyTorch for Deep Learning with Python Bootcamp

Training on NumPy, Pandas and PyTorch including CNNs, LSTMs and GPU optimization.

### PUBLICATIONS

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First Author

- **LRBinner: Binning Error-Prone Long Reads Using Auto Encoders**  
Anuradha Wickramarachchi, Yu Lin (WABI 2021) DOI: 10.4230/LIPIcs.WABI.2021.11
- **PlasLR Enables Adaptation of Plasmid Prediction for Error-Prone Long Reads**  
Anuradha Wickramarachchi, Vijini Mallawaarachchi, Lianrong Pu, Yu Lin (Under review at PLOS CB, Presented at GLBIO 2021)  
DOI: 10.1101/2021.06.14.448306
- **GraphPlas: Refined Classification of Plasmid Sequences using Assembly Graphs**  
Anuradha Wickramarachchi, Yu Lin (EEE/ACM Transactions on Computational Biology and Bioinformatics 2021) DOI: 10.1109/TCBB.2021.3082915
- **MetaBCC-LR: Metagenomics Binning by Coverage and Composition for Long Reads**  
Anuradha Wickramarachchi, Vijini Mallawaarachchi, Vaibhav Rajan, Yu Lin (ISMB 2020)  
DOI: 10.1093/bioinformatics/btaa441

- **GraphBin2: Refined and Overlapped Binning of Metagenomic Contigs Using Assembly Graphs**

Vijini G Mallawaarachchi, Anuradha S Wickramarachchi, Yu Lin (20th International Workshop on Algorithms in Bioinformatics; WABI 2020)

DOI: 10.4230/LIPIcs.WABI.2020.8

- **GraphBin: refined binning of metagenomic contigs using assembly graphs**

Vijini Mallawaarachchi, Anuradha Wickramarachchi, Yu Lin (Bioinformatics 2020)

DOI: 10.1093/bioinformatics/btaa180

## SOFTWARE/TOOLS

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### Research Related

Freely available at [github.com/anuradhawick](https://github.com/anuradhawick)

- LRBinner (PacBio/ONT reads clustering tool)
- MetaBCC-LR (PacBio/ONT reads clustering tool)
- PlasLR (Plasmid classification extension for PacBio/ONT reads)
- GraphPlas (Graph based plasmid classification extension tool)
- Seq2Vec fast memory mapped sequence vectoriser written in C++ (Boost)
- Seq2CovVec fast coverage vector computations for long reads written in C++ and Python

### Software Engineering

Freely available at [github.com/anuradhawick](https://github.com/anuradhawick)

- Vinyl.LK (AWS Serverless/Atlas Mongo hosted website for Sri Lankan vinyl records)
- YOLO Object Annotation Maker

## AWARDS/ACHIEVEMENTS

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### Academic

- ANU Merit Fee Remission Scholarship
- Deans list for all 8 semesters during BSc
- Mahapola Sri Lankan undergraduate scholarship (merit based)
- GCE Advanced Level Island Rank 68 (District Rank 4)

### Non-Academic

National Awards

- Merit Award - National Best Quality ICT Awards (NBQSA) Oct 2017 (Sri Lanka) for Final Year Honours Project
- Merit Award - National Best Quality ICT Awards (NBQSA) Oct 2016 (Sri Lanka) for Taxi Master Project

Hackathons

- First place: IDEA Challenge 2017
- Google IO 2016 1st Runners up May 2016
- First place: IDEA Challenge 2016

## SKILLS

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### Programming

Python, C, C++, JAVA, JavaScript, NodeJS, etc

- Industrial experience in ReactJS, MongoDB, AWS Serverless and AWS developer console.
- Research experience in python, C and C++.

### Tools/Frameworks

Bioinformatics tools

- Aligners - minimap(2), BLAST+, Edlib, etc

Bioinformatics/Programming libraries

- libminimap2, GATK, Edlib, biopython, etc
- Boost C++ library

Machine Learning

- Tensorflow, Pytorch, Sci-kit learn

### Languages

English professional proficiency and Sinhalese native proficiency.

## ADDITIONAL INFORMATION

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### Interests

Blogging, Travelling and Gaming

### Referees

Available upon request.